CmpE 150 Project #1

Deadline: March 30, 2015 (1:00 p.m.)

Description

Write a program that makes 4 basic operations (+, -, /, *) between natural numbers in a given base. Your program will take the inputs in the following order:

- The base of number system.(type: int)

- The type of the operation (type: char)

  - 'a' for Addition
  - 's' for Subtraction
  - 'd' for Division
  - 'm' for Multiplication

- 2 numbers (type: int)

Notes:

- You do NOT need input checks. (All input will be given in the appropriate form. For example, if the base is given as 7, then you can assume that all the digits in the input numbers are smaller than 7. The base will be between 2 and 10 (min:2, max:10))

- The solution part in the following section is just to help you to understand the logic of base operations. You should only print the outputs on the screen.

- In the division operation, you will do integer division. (Ignore the remainder.)

- If you need to use the power operation, you can use the pow() function after including the math.h library.

- **Be careful that you must take the input in the order as indicated in the question and examples, and you must give the output as shown in the examples (DO NOT write anything on the screen other than the output. DO NOT write any string like "The output is...". Also DO NOT take any extra input (e.g. DO NOT put a scanf function at the end of your program). For input and output, always use scanf and printf functions, DO NOT use getchar and putchar or getch, putch. Also DO NOT use the fflush() function.**

Examples:

Examples	1	2	3	4	5
Input	2	2	3	7	10
	s	m	a	d	a
	1011101	1011101	1011101	65301	98321
	1111	1111	1211	1206	2314212
Output	1001110	10101110011	1020012	51	2412533
Solution	$(1011101)_2$	$(1011101)_2$	$(1011101)_3$	$(65301)_7$	$(98321)_{10}$
	$- (1111)_2$	x $(1111)_2$	$+ (1211)_3$	$/ (1206)_7$	$+ (2314212)_{10}$
	$(1001110)_2$	$(10101110011)_2$	$(1020012)_3$	$(51)_7$	$(2412533)_{10}$